

ETHICS, LEGAL AND PRIVACY CONCERNS FOR THE NEXT GENERATION OF INSURANCE POLICIES

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We present a set of hypothetical scenarios and cases where the need for access, sharing and processing of sensitive personal information increases the transparency of the customer to buyer relationship, although it may irreversibly damage the customer's sphere of privacy. Highly personalised early risk prediction models for use by insurance companies to estimate the probability that a specific event (heart infarct) or a disease (diabetes) occurs in a given individual over a predefined time can enable earlier and better intervention, prevent negative consequences on a person's quality of life and thus result in improved individual health outcomes. The challenge is to design, develop and validate new generations of comprehensive models that will be the result of a consensual process with the customers and will be based on artificial intelligence and other state-of-the-art technologies using multiple available data resources and will integrate them in personalised insurance policy pathways that empower the customers to actively contribute to their own individual health-risk mitigation and prevention.

Keywords

privacy • holistic insurance • platform economy • tragedy of the commons

1. Introduction and setting of the context

It might be the nightmare for every (normal) person on earth or a good starting point for discussing our understanding about fairness in societal and economic aspects. 'The ant and the grasshopper' is one of Aesop's Fables aiming to teach people the virtues of (hard) work and planning for the future. All types of insurance aim to the same goal: try to protect us from the unexpected and from the most expected, taking care and covering us from financial damages or its consequences.

We buy an insurance policy when we rent a car as an accident may happen – the accident may not happen but we are still happy for this, as we appreciate the fact that in case the accident may have happened, we would have been covered. Of course, there is no objection that it is in our human nature to speculate: so when we rent for our first time a big SUV to drive it in the narrow rural streets of the Costiera Amalfitana, we may opt for buying the insurance that includes also an as low deductible as we may regard as rather highly probable that an accident will happen to us. While if we do rent for the n th time a car like the one we own for a routine business travel, we may not care for a low deductible and opt for the cheaper insurance policy, thus choosing to ignore the possibility of an accident.

Let us stay a little longer to the area of car insurance as it is safer: we may know that there is something called black box car insurance, called pay-as-you-drive or pay-how-you-drive. It is an option that tracks the drivers' style and behaviour to punish or reward them accordingly. This is like admitting that one has nothing to hide and asks for receiving a special treatment: one behaves better than the 'big mass of other drivers' and therefore prefers to be treated as a special case, and also pays a lower price for the insurance policy.

Of course, every coin has another side as well: one may start seeing there that certain categories of drivers relate to different types of risks: men and women, younger and older people and people with children and those without any children. In the past, one can imagine insurance companies keeping records of coarse categorisations – in the times of Big Data, we may be able to calculate the risk or the expectation for an incident to occur even at a very tiny level of detail and accuracy. So, for the sake of example, if one is a left-handed gay male with a stable relation and a canary as a pet, the stakes may be low, whereas if one is a right-handed hetero female person with no pets, no stable relations and a tendency to forget car or home keys, then one is rather the opposite: their category is (hypothetically, of course) known for causing accidents.

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So we may now more clearly see the unfairness of inferred generalisations: once a person (hypothetically) is a right-handed hetero female one with no pets, no stable relations and a tendency to forget their car and home keys, but without having caused any accidents, one is assigned a high premium only because 'their' category is known for causing accidents. Does not it seem like rather unfair? Does not one now see that the black box or the big brother-in-a-box insurance may be *fairer* and offer quite all the *transparency* one may wish for themselves? Above all offers also what is regarded and communicated as the holy grail in business and services nowadays, namely, a high level of *personalisation*. Everyone is treated as they are: no considerations for canaries and other pets and no need to care about sexual preferences; it is all and only about someone's individual driving style and habits and his or her actual driving behaviour.

From our point of view, there is another problem, when it comes to those 'categories': If the clustering into categories is supported by some rational reasoning like *young driver/experienced driver* or *smoking/non smoking*, then this may not be as problematic, as one can still argue and convince the customer, why s/he has to pay more. But what if an artificial intelligence-driven algorithm produces clustering and categories that are not causally related at least in a way that a human may see and understand the rationality of the causality relation? On this, see also Heidari, Ferrari, Gummadi, and Krause (2018), Kilbertus et al. (2018) and Speicher et al. (2018), especially on *the notion of fairness*.

Causality, of course, is not as straightforward as one may think: the distinction between right-and left-handed drivers may not seem obvious but may be supported through bibliography and with *evidential data*.

2. Idiosyncratic aspects for modelling in the health insurance domain

It is time to leave the area of car insurance and turn to the most usual and widely common type of insurance policies, namely, the health insurance.

Getting older is not a comfortable situation, as health problems and diseases accumulate. Whoever still keeps an old car which they bought from new may have a first-hand experience and know that towards the end of its usage period, a car costs more to maintain than it costed 10 or 20 years ago, and even worse, one finds no fun to keep investing on it. Humans are, of course, *no* cars, but same as the cars, they have needs. So one can be pretty sure that insurance companies – if they had the option to choose – might all have liked to insure young and healthy people and avoid people who are old and hence susceptible to diseases and eventually to death. Obviously, there are differences between the

different countries and also the different types of insurance, which differentiate, for instance, between the 'core' of an *obligatory health insurance* policy that may not exhibit any distinctions amongst the customer population, and additional or complimentary ones that may – depending on age, health conditions, customer profile, etc. – vary significantly.

Again we reach a point of generalisation, which as we have seen from the car insurance example earlier may not be right at all: young people do many times foolish things such as driving too fast or under the influence of alcohol; they also overestimate their capabilities in almost everything. The chances of a burn out is rather higher for a 40-year-old person than for a 70+ one.

The thing is that same as driving is worth to be monitored at the individual level, it makes sense to also watch and monitor the individual person's way of managing his or her health. What does this mean – is it monitoring what and how much they eat and drink, how much they walk, how many hours they watch TV or sleep and eventually entering to the more intimate aspects of their sex lives?

So in a similar manner to the driving habits, one may see that a hypothetical person X who is young and does lots of sport and eats and drinks healthy but watches lots of hours porn and sleeps very few and not stable hours may have a higher risk for suicide or burn out or mental disorder or depression than a peaceful bon viveur, which we call Y, with a slight obesity and a tendency to consume a little more than the average of alcohol and unhealthy foods. The latter may still not sleep well (as a result of too much food and digestion problems), but bad sleep is having other roots than for the person we call X in our hypothetical example.

Here, we are with the big key question: is an insurance company entitled to know as much information about ourselves? Is not it unethical, like an unimaginably cruel Kafkaesque, dystopic reality where life would be unbearable to live?

In the free world, there are many (types of) freedoms – otherwise there would be no good reason to call it free world – such as the freedom of speech, the freedom of movement, the freedom of expression and for sure lots of freedoms more. So there may be some freedom called 'the freedom to eat as many ice creams or Oreo cookies or Mars chocolates' as one wants. To this, we may all agree. The question one may see the need to ask here is: why should then a health insurance pay for a person's infarct or stroke or the treatment of all their chronic diseases (diabetes, coronary disease, kidney failure, etc.) that the person may acquire as a result of his or her 'freedom to eat'? The social aspect of a health insurance understands that 'we' as a community (of citizens, customers, etc.) carry some type of responsibility to protect the interests of ourselves *at an individual level*, as well as the community itself *at the collective level*. However, this

may not always be the case, as demonstrated by the notion of the tragedy of the commons (Hardin, 1968, 1998).

One may elaborate and infer that there is also the freedom to drink, the freedom to smoke and also the freedom to-not-do-any-sports, etc. The ideal of a healthy society has been with the ancient Greeks. As we may recall from the school history lessons, there were not only the Athenians but also people in all other ancient Greek cities who valued the physical exercise very much as part of caring for the soul and the spirit. However, there were also the Spartans, who according to the legend, were systematically getting rid of the 'unfit' as they defined the weak, the sickly, the deformed, or the mentally challenged infants as Caeadas. So we have two in one: the ideals of health and beauty of a democracy and also the brutality and cruelty of a totalitarian regime. Of course, one may not need to see any contradiction to this, as it is a rather easy to identify case of information asymmetry where one party has more or better information than the other. Such an asymmetry creates an imbalance that can result to adverse selection, also a well-researched case in insurance business, where the 'ignorant' party lacks information while about to agree for a contract (Cutler & Zeckhauser, 1998; Finkelstein & Poterba, 2004). Back to the example of ancient Greece, there is no evidence or information for what the Athenians did with the 'unfit'; it is quite possible that they may have been doing the same or similar, but we are sure that they have not formed an ideology to explain such a behaviour. What may seem immoral (or rather unethical?) in case of an insurance company that would refuse to cover a person with some disease or an increased tendency for a disease may be regarded by a cynic person as an unpleasant though still fair way to protect the interests of the other customers from incurring costs that would not be considered as 'fair' to be paid by their installed base. So the whole may refer to discussions of how far should one go with the rights of the 'Hoi Polloi'. (On this, in Germany, for example, a person may be excluded from the civil service, when their risk of getting a disease of affluence is considered high.)

To avoid making the above become more complicated than necessary, one can suggest that insurance companies may only need to reflect the *dominant ideologies* of their times (Abercrombie & Turner, 1978). In the Elizabethan era, the ethos and practice for everything may have been different than in the Victorian era. So there is a flow in the society, and this should be reflected in every business including the insurance business. To this, the question raises: what is nowadays the *dominant ideology* in insurance matters? Is it fair to pay for people's years or even decades-long bad habits? Is it right that lots of *responsible* customers of a health insurance company pay for treatments of people who cared less or not at all for their own health?

From a methodological point of view, one may consider, for example, living habits such as smoking, eating patterns,

drinking with a focus not only on alcohol consumption but also other type of sugar-containing beverages and sports. However, although sports is considered as a positive asset, sometimes and when done very intensively or in case of high-risk sports, it may have a quite negative or life-threatening impact.

What is a problem here? We end up in the same aforementioned Kafkaesque, dystopic reality as it seems that there is no end at all: If one looks at living styles, then one might be interested in everything, e.g. eating habits, sleeping, watching TV, problems with the family or the partner, and the circle of friends. It may become even worse, reaching Orwellian levels: we may all agree that our friends have an influence on us. So being friends with people who have bad habits (smoke and drink a lot, watch too many hours TV and in general have an unhealthy lifestyle) may increase our risks for following their lifestyle sooner or later.

So here one may see the risks of building societies that may have been practically unimaginable for the totalitarian state of the national socialists in Germany in the 1930s and 1940s, as at that time, the *enabling technologies* were still missing. However, it is these enabling technologies that are today with us, and there is no clear line or barrier to not make use of them apart from our understanding on ethics, legal and privacy aspects, which, at a great extent, are like a moving target that is steered by several different forces.

Apart from the examples of living styles mentioned earlier, there are other related to the person and for which a person may do little or – in contrast to the living styles – literally nothing against them. These are the cases of inherited or congenital predispositions: some diseases are directly inherited or the person is born with them, or their outbreak/appearance is much more likely due to a hereditary cause like in the case of high(er)-risk families for breast cancer, etc. For these illnesses, the insured customer bears no 'blame' due to bad habits. There are always borderline cases: what about a drug user who consumes drugs due to an inherited psychological instability? To what extent does he or she carry responsibility for his or her actions? As it is all about insurance: why should an insurance company pay for this? In case this is not a private insurance company but a state-owned one, then why should the community and all tax payers pay for this person?

The discussion seems close to matters related to the recent discussions at the European and global levels regarding solidarity within the society, as both cases share a common projection: the customers of an insurance company have the right to demand and expect a *fair* treatment for themselves (and their own mistakes and shortcomings), while they may also see that they have the right to (demand to) not pay for other customers' mistakes. One way for an insurance company to cope with this controversial situation is to either allow for all customers' mistakes and shortcomings

or penalise all mistakes. So while solidarity may be a highly praised and expected virtue for a society or even smaller groups of people such as the employees of a company, one may wonder why to expect or even demand solidarity when involved in a business transaction, as in the case of buying an insurance policy?

Companies are nowadays investing more on the emotional components of their business – some of which may be totally outside the transactional parts and only refer to the feelings that they evoke to the customers (Barsade & O'Neill, 2016). With the proliferation of social media and networks, however, it is these emotional components that may have a crucial role in the shaping of such dominant ideologies. In the next section, we explore some aspects that might constitute to what one may regard as foundational when considering the case of *ethical* insurance products.

3. Foundations of ethical insurance products

Privacy of customers is of primary importance in all phases of the lifecycle of insurance policies, spanning from the early product design to its provision and 'delivery' to the customer (Talesh, 2018). However, for the given application domain we address in the present article, there is also a need for a broader approach to the notion of *ethics*. Here again, ethical requirements need to be applied to all aspects mentioned earlier, including also a continuous assessment process with the customers and the society at large. Such ethical considerations need to be furthered when preparing the roll out of a new insurance policy. Recent European Union (EU) legislation has altered the legal framework concerning data protection in the EU by approving the General Data Protection Regulation (EU, 2016). This new regulation, which is applied since May 2018, takes into account more 'protective' standards established by it, especially as regards the principle of privacy by default (i.e. arts. 25 and 32 of the GDPR regulation) and a new generation of data protection impact assessments (pursuant to art. 35). In the following, we present some of the guiding principles that need to be taken into account when considering the design of new insurance policies. Not all of them are straightforward, and in many cases, there is a high degree of difficulty to translate a guiding ethics and privacy relevant principle into a feature of an insurance product. However, one may see this as a positive challenge for all stakeholders involved in this process.

The basic starting point for an insurance company is to give priority to the offering of a trusted policy product, which *guarantees minimum privacy loss*. This may possibly become perhaps one of the primary unique selling propositions of future *holistic health insurance products*: while the challenge for many insurance companies will be to find ways to

access to the entirety of customer data in order to build and improve their billing models, from an ethical standpoint that also serves consequential business sustainability aspects, it makes increased sense to adhere to the highest privacy practices that allow customers to use an insurance product without exposing their data or letting them become an asset of the particular insurance company's data analytics platform.

Practically, this means that

- such a platform would not collect any personal and sensitive data;
- all personal and sensitive data would be removed before collection and hence not exported outside the company's information system unless *anonymised at source* to support, e.g., some higher level of statistical processing;
- the data collection process should facilitate automated personal and sensitive data discharge; and
- the insurance company data analytics platform should have no direct access to the customers' raw data; hence, there is no need for a data processor agreement to be established and signed according to GDPR.

As it is easy to see, the ethics and privacy aspects are to be considered as one of the strongest assets for such a platform. In the following, we present some of the most relevant basic principles as set by GDPR, which shall be binding and directly applicable in all EU Member States but, as expected, may also affect insurance companies that operate outside EU but have a presence in some of the EU member countries offering their products to citizens of the EU

Transparency

The data subject, namely, the customer or prospective/future customer of an insurance company has the right to be informed when his or her personal data are being processed. The controller must provide his or her name and address, the purpose of processing, the recipients of the data and all other information required to ensure the processing is fair (arts. 12, 13 and 14). Data may be processed only under the following circumstances (art. 6):

- when the data subject has given his or her consent;
- when the processing is necessary for the performance of or for entering into a contract;
- when processing is necessary for compliance with a legal obligation;
- when processing is necessary in order to protect the vital interests of the data subject;
- when processing is necessary for the performance of a task carried out in the public interest or in the exercise of official authority vested in the controller or in a third party to whom the data are disclosed; and

- when processing is necessary for the purposes of the legitimate interests pursued by the controller or by the third party or parties to whom the data are disclosed, except where such interests are overridden by the interests for fundamental rights and freedoms of the data subject.

The data subject has the right to access all data processed about him or her (art. 15). The data subject has even the right to demand the rectification (art. 16), erasure (art. 17) and restriction of processing the data (art. 18) and the right to data portability (art. 20).

Legitimate purpose

Personal data can only be processed for specified explicit and legitimate purposes and may not be processed further in a way incompatible with these purposes (art. 5b).

Proportionality

Personal data may be processed only insofar as they are adequate, relevant and not excessive in relation to the purposes for which they are collected and/or further processed. The data must be accurate and, where necessary, kept up to date; every reasonable step must be taken to ensure that data that are inaccurate or incomplete, having regard to the purposes for which they were collected or for which they were further processed, are erased or rectified. The data should not be kept in a form that permits identification of data subjects for longer than is necessary for the purposes for which the data were collected or for which they were further processed. Member States shall lay down appropriate safeguards for personal data stored for longer periods for historical, statistical or scientific use (art. 5). When sensitive personal data (can be religious beliefs or political opinions, or data related to health, sexual orientation, race or membership of past organisations) are being processed, extra restrictions apply (art. 9).

The new EU regulation provide for the establishment of several new requirements with respect to the previous directive:

- Privacy by design and by default (cf. art. 25): When designing new services and applications, the principles of data protection by design and by default should be taken into consideration. The GDPR mentions some examples what this might mean in practical terms. Such measures could consist, *inter alia*, of minimising the processing of personal data, pseudonymisation of personal data as soon as possible, transparency with regard to the functions and processing of personal data, enabling the data subject to monitor the data processing and enabling the controller to create and improve security features. The data controller shall implement appropriate technical and organisational measures for ensuring that, by default, only personal

data that are necessary for each specific purpose of the processing are processed.

- Data protection officers (cf. art. 37): In certain circumstances, data controllers and processors must designate a data protection officer as part of their accountability program. The threshold is (i) processing is carried out by a public authority; (ii) the core activities of the controller or processor consist of processing, which, by its nature, scope or purposes, requires regular and systematic monitoring of data subjects on a large scale; or (iii) the core activities consist of processing on a large scale of special categories of data.
- Consent (cf. art. 7): A data subject's consent to processing of his or her personal data must be as easy to withdraw as to give consent. Consent must be 'explicit' for sensitive data. The data controller is required to be able to demonstrate that consent was given. Existing consents may still work but only provided they meet the new conditions.
- Fair processing notice (cf. art. 12): Data controllers must continue to provide transparent information to data subjects. This must be done at the time the personal data are obtained. However, the requirements in the GDPR are more detailed than those in the current directive. For instance, the information to be provided is more comprehensive and must inform the data subject his or her certain rights (such as the ability to withdraw consent) and the period for which the data will be stored.
- Data breach notification (cf. art. 33): Data controllers must notify most data breaches to the Data Protection Authority (DPA). This must be done without undue delay and, where feasible, within 72 h of awareness. A reasoned justification must be provided if this timeframe is not met. In some cases, the data controller must also notify the affected data subjects without undue delay.

According to the GDPR (art. 40), the Member States, the supervisory authorities, the Board and the Commission shall encourage the drawing up of codes of conduct intended to contribute to the proper application of this new regulation, taking account of the specific features of the various processing sectors.

Having looked at the possibilities offered by the law, it is time to now have a closer look to the implications that are to be drawn for the insurance business.

In principle, the data protection regulations need to be examined. However, this should also take into account if the customer agrees to the collection and processing of his or her sensitive personal data. An insurance company may of course make a better offer of a premium to those customers who agree to the processing, following the line that 'the customer pays with their own data' or receive at least a discount because they agree to their processing. At the end, however,

they should not be punished for this, e.g. if the algorithms categorise them as a “bad” customer.

4. Discussion and conclusions

The concept of *imagined communities* was introduced by Benedict Anderson back in the 1980s (Anderson, 2006) to analyse nationalism. Anderson depicts a nation as a *socially constructed community*, imagined by the people who perceive themselves as part of that group. Nowadays, with the proliferation of social media and social networks and their enabling technologies, we see that it is also the latter that creates such imagined communities, by means of targeting a *public audience*. The concept of influencers as we nowadays experience it also creates such imagined communities with thousands and in some cases even millions of followers (Nandagiri & Philip, 2018).

A key trend we foresee for the future of health insurance business is based on the transition from the rather monolithic culture of the traditional insurance industry towards more agile, customer-oriented models of operation (Osborne & Ballantyne, 2012) that will actively engage the customers in the shaping of the insurance policy to fit to their individual needs, lifestyle and preferences.

Such an involvement of the customer in all phases of the lifecycle of an insurance policy will necessitate the establishment of a mutual trust relationship. This means that the customer will have to trust the insurance company, while the latter should also take into account that lack of trust from the customer's side shall negatively or even severely affect the value-co-creation processes (Fragidis & Tarabanis, 2008, 2011). For this to happen, several privacy spheres' considerations will have to be voluntarily from the customer's side given up or even abandoned, as part of the aforementioned mutual trust establishment. We present an illustrative hypothetical scenario that may help conceptualise the type of implications that trust may incur in the production of a future insurance policy.

Milan, Italy, 2028

James is a 28-year-old freelance data manager working in temporary and time-limited contracts all over the world. His assignments demand from him to travel intensively. James is vegetarian and pays high attention to his health, following a tight though not strict training and stay-fit plan.

Three years before he closed a contract for an insurance policy that was taking into consideration all parameters that define his privacy, such as:

- *dietary habits* in detail, not only if he is eating meat or not but also his exact dietary plans of the last three months

before closing the insurance contract. Same also for his drinking habit: how much alcohol, how many energy drinks or other beverages such as coffee and tea, type of coffee, type of tea and last but not the least how much water. It may seem like an intrusion to his privacy, but as the insurance consultant explained to James, all these separate information entities help create an image about his future health status that is of utmost importance to the insurance company

- *physical fitness* again in detail and as James did, providing access to the log files of two fitness Apps that James was subscribed to
- *personal information* including his readings: books, blogs, newspapers, as well as movies and series. James felt a little embarrassed, but he was advised by the insurance consultant that this is in order to detect any existing, latent or potential psychosomatic anomalies that might not be reflected when looking into the other parameters. As an example, the insurance consultant mentioned that people who keep on reading the same book (e.g. *The Catcher in the Rye* or *In Search of Lost Time*) may develop different types of depression than people who read Jeffrey Archer's or Rosamunde Pilcher's novels, all of which incur totally different procedures and imply different levels of costs
- *sex life*; although this is for sure highly private, the insurance company wants to know everything about James' habits. Is he dating women when in trips? Are they professional sex workers (in that case asking also for additional information if they are licensed, etc.) or casual meet-ups? Is he having a stable relationship or other parallel relationships? The insurance consultant was happy to provide James with all the background information and scientific research evidence that would convince him why this is important information. As an example, he mentioned to him the time and money losses for himself and the costs incurred for the insurance company in case of an STI or in case of AIDS: sometimes they might need payments of up to 5 million Euros in a timeframe of 2 to 3 years. His sex life is important for the company as his food and drink habits and dietary habits.

“What am I getting for all this information I am now voluntarily about to give to you?” was the well-meant question of James to the insurance consultant. “Insurance business is based on trust – mutual trust from both sides, or in case of more complicated and complex settings, from all involved parties” was the answer of the insurance consultant.

Reduction of trust levels (actual, perceived or anticipated) is the most common reason for increasing the price of a product. Of course, greed and the need to keep high profit margins is also a contributing factor, but the main cause is the uncertainty. So if in our world where precision marketing (Zabin & Brebach, 2004) prevails in all phases of retaining,

cross-selling and upselling existing customers, the *exact* knowledge of a customer's profile and characteristics helps especially if this is related to all the implied corpus of privacy-related information. It may seem Orwellian (or Kafkaesque or dystopic) but may not be if organised and handled appropriately.

In the previous section, we mentioned the (hypothetical) cases of categorising people and coming up with findings like right- or left-handed, gay or hetero, male or female or with or without pets or relationships. Even in this case that statistics might speak for a low or high probability of a person for causing accidents, it is the *exact* knowledge of all person's related information that will avoid an unnecessary increase in insurance fees.

This means that we shall experience a new transition as far as the insurance fees and policies are structured: from the times that insurance rates were based on coarse categorisations that ended up being generally accepted like men or women, blue- or white-collar workers, etc. to the current times where privacy is harmed and in some cases also violated, we shall experience a second transition towards a consensual, self-willed and self-initiated provision of severe amounts of private and sensitive data as well as the capacity to continuously control the respective data streams and spot on time any discrepancies. The question is if this new type of increased or absolute transparency will allow customers to feel free or not.

Insurance companies nowadays have the right to ask people whether they are smokers or not and people (have to) answer to this question. There is no sincerity about how many are not saying the truth. In addition, there are no evidence data how the insurance companies treat the liars. On the other hand, we may all agree that any single liar harms the trust assets – which is same as financial assets need to be compensated from an increase in the insurance rates and the fees paid by the other customers.

It remains of course to be proven that environments of increased trust pay off and make business sense for commercial enterprises. On this, relevant sources can be found in Berg, Dickhaut, and McCabe (1995) and Bergstrom (2002). The area has been also extensively researched – although not under the perspective of private sphere disclosure but rather in a game-theoretic context, from the perspective of prisoner's dilemma. In very abstract terms, one may now see the opportunity given to both sides, namely *both the insurance company and the customers* to choose to cooperate and co-create value instead of looking to what one might see as their own 'individual' interests being opposed to the other party. In this way, pitfalls like the ones related to the tragedy of the commons (Bovens, 2015) or similar zero-sum game-theoretical conceptualisations (Pettit, 1986) may be avoided, in a way that complies with Anderson's *imagined communities* (Anderson, 2006) that we mentioned before.

A platform such as the one that we delineate earlier borrows elements of what are considered as essential paradigms in the context of the sharing economy. The latter is used rather as an umbrella term referring to the practices of sharing, exchange or renting of goods and services to others through IT without the transfer of ownership. It promises to "increase efficiency and effectiveness by reducing transaction costs and increasing the rate of utilisation of goods and services" and has "a transformative effect on how goods and services are provided" (Taeihagh, 2017).

Independently on the acceptance that the term and the notion of the sharing economy may have experienced as of today, there is hope that it is still valid as a means of describing a generally more democratised marketplace, even when applied to a wider spectrum of services. To this aim, sharing economy may be regarded from the viewpoint of collaborative consumption, referring to resource circulation systems that allow a consumer two-sided role, in which consumers may act as both providers of resources or obtainers of resources (Ertz, Durif, & Arcand, 2016).

For the scope of this article, these resources may be their own personal, private data. It is easy to see however that what remains unclear yet is the role that the sharing economy, when applied to the health insurance business, can play when it comes to sharing social values. Creating a truly sustainable, trustable world will ultimately require policy and lawmakers to enact much more radical reforms to the way we manage the community and private resources and organise economic systems.

To this direction, there is a need for a shift in public awareness that can affect real change in the society; we need to emphasise the wider environmental and social benefits of sharing private data and not the purely individual benefits, such as financial savings for the individual customer of an insurance policy. Stimulating ethical and moral values that go beyond self-interest in this way is far more likely to encourage social activism of the kind sorely needed today.

The remaining question now is how can such ethics look like? It makes little sense to let politicians 'work' on the legislation and regulation fronts, as there would be a high risk that the society would fall by the wayside. Last but not the least, there is the dilemma: in order for a collective consciousness to develop, the consequences of the actions of all actors and stakeholders involved (e.g. insurance companies, individuals, and the state) need to become transparent. However, in reality, this becomes apparent only when it is usually already too late.

On the other hand, the trail of what one might call as the 'historical society' has managed to establish ethical canons that, although very narrow-minded from someone's perspective ("thou shalt not ...", "thou shalt ..."), still function well overall. It may only be that to establish such a new ethical canon may still need some time.

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